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DIALOG(R)File 352:Derwent WPI
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WPI Acc No: 1984-070343/198412
Related WPI Acc No: 1991-001273
XRAM Acc No: C84-030055
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Positive and negative working resist compsn. - comprising polymer with
acid labile gps., cationic photoinitiator and sensitiser
Patent Assignee: IBM CORP (IBM)
Inventor: FRECHET J M J; ITO H; WILLSON C G
Number of Countries: 005 Number of Patents: 006
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 102450	A	19840314	EP 83104285	A	19830502	198412 B
JP 59045439	A	19840314	JP 83109463	A	19830620	198417
US 4491628	A	19850101	US 82410201	A	19820823	198503
JP 90027660	B	19900619	JP 83109463	A	19830620	199028
EP 102450	B	19910904				199136
DE 3382401	G	19911010				199142

Priority Applications (No Type Date): US 82410201 A 19820823
Cited Patents: 2. Jnl. Ref; A3...8642; FR 2211677; JP 53081116; JP 56029232;
JP 56039539; JP 58068743; No-SR. Pub; US 3779778; US 3782939; US 4101323

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 102450	A	E	12		
Designated States (Regional): DE FR GB					
EP 102450	B				
Designated States (Regional): DE FR GB					

Abstract (Basic): EP 102450 A

Compsns. comprise a polymer (I) with recurrent acid labile pendant
gps. (II), a cationic photoinitiator (III) which generate an acid upon
exposure to radiation, and a sensitiser (IV) which absorbs radiation
and transfers energy to the photoinitiator.

(I) are pref. homo or copolymers of poly(tert-butyloxy carbonyloxy
-alpha-alkylstyrene); poly(p-tert-butyloxy carbonyloxy
-alpha-methylstyrene); poly(tert-butyloxy carbonyl oxystyrene);
poly(p-tert-butyloxy carbonyloxy-styrene); poly(tert-butylvinyl
benzoate); poly(tert-butyl methacrylate); (II) are pref.
tert-butylesters of carboxylic acid or tert-butyl carbonates of
phenols. (III) is pref. aryldiazonium salt, diaryliodonium salt or a
triarylsulphonium salt. (IV) is pref. a dye, polycyclic aromatic cpd.
pyrene or perylene.

Compsns. with recurring aromatic rings are resistant to plasma and
reactive ion etching. Compsns. with triaryliodonium or triarylsulfonium
metal halides give very high resolution images even in films thicker
than 2 microns, in deep UV light (200-300 nm) exposure.

Dwg. 0/0

Title Terms: POSITIVE; NEGATIVE; WORK; RESIST; COMPOSITION; COMPRISE;
POLYMER; ACID; LABILE; GROUP; CATION; PHOTOINITIATOR; SENSITIVE
Derwent Class: A89; G06; P83; P84; U11
International Patent Class (Additional): C08K-005/00; G03C-001/72;
G03C-005/24; G03F-007/08; H01L-021/02
File Segment: CPI; EPI; EngPI